



New Global Precipitation Products and Data Service Updates at the NASA GES DISC

Z. Liu^{1,2}, D. Ostrenga^{1,3}, A. Savtchenko^{1,3}, B. DeShong^{1,3}, M. Greene^{1,4}, B. Vollmer¹, and S. Kempler¹

¹NASA Goddard Earth Science Data and Information Services Center (GES DISC)

²CSISS, George Mason University; ³The Adnet Systems, Inc.; ⁴Wyle Information Systems, LLC

Zhong.Liu@nasa.gov

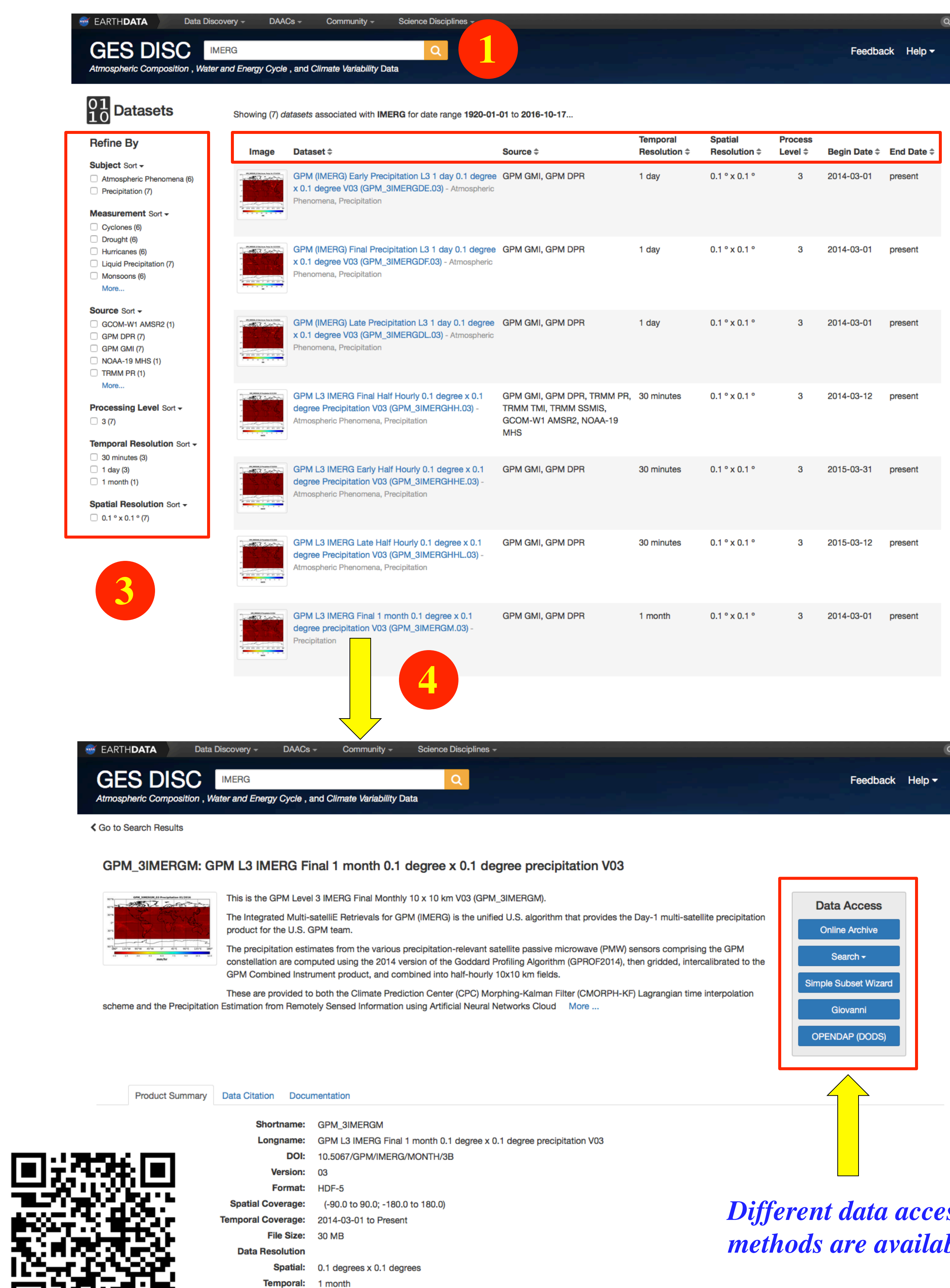
Abstract

This poster describes recent updates of the ongoing GPM data service activities at the NASA Goddard Earth Sciences (GES) Data and Information Services Center (DISC) to facilitate access and exploration of GPM, TRMM and other NASA precipitation datasets for the global community. The poster contains:

- ❑ Updates on GPM products and data services
- ❑ New features in Giovanni for precipitation data visualization
- ❑ Precipitation data and service outreach activities

A new Web interface (below) provides an easy way for searching and accessing GPM and TRMM datasets as well as other precipitation datasets (i.e. MERRA, GLDAS, NLDAS) at the GES DISC. Future plans include a Data List (coming soon, posters available) for hurricane studies which consists of pre-selected datasets and parameters. A personalized Data List is being planned so users can develop their own data lists for various projects, for example, a collection of monthly global precipitation datasets from TMPA, IMERG, MERRA, etc. and with the User Registration System (URS), the system will save these data lists with the future orders or sharing with colleagues or others.

- 1 Search box
- 2 Basic dataset information
- 3 Facets (subject, measurement, source, etc.) to filter out unwanted datasets
- 4 Dataset landing page (data access, summary, citation, documents, etc.)



GES DISC IMERG

Atmospheric Composition, Water and Energy Cycle, and Climate Variability Data

Feedback Help

1

2

3

4

Dataset landing page (data access, summary, citation, documents, etc.)

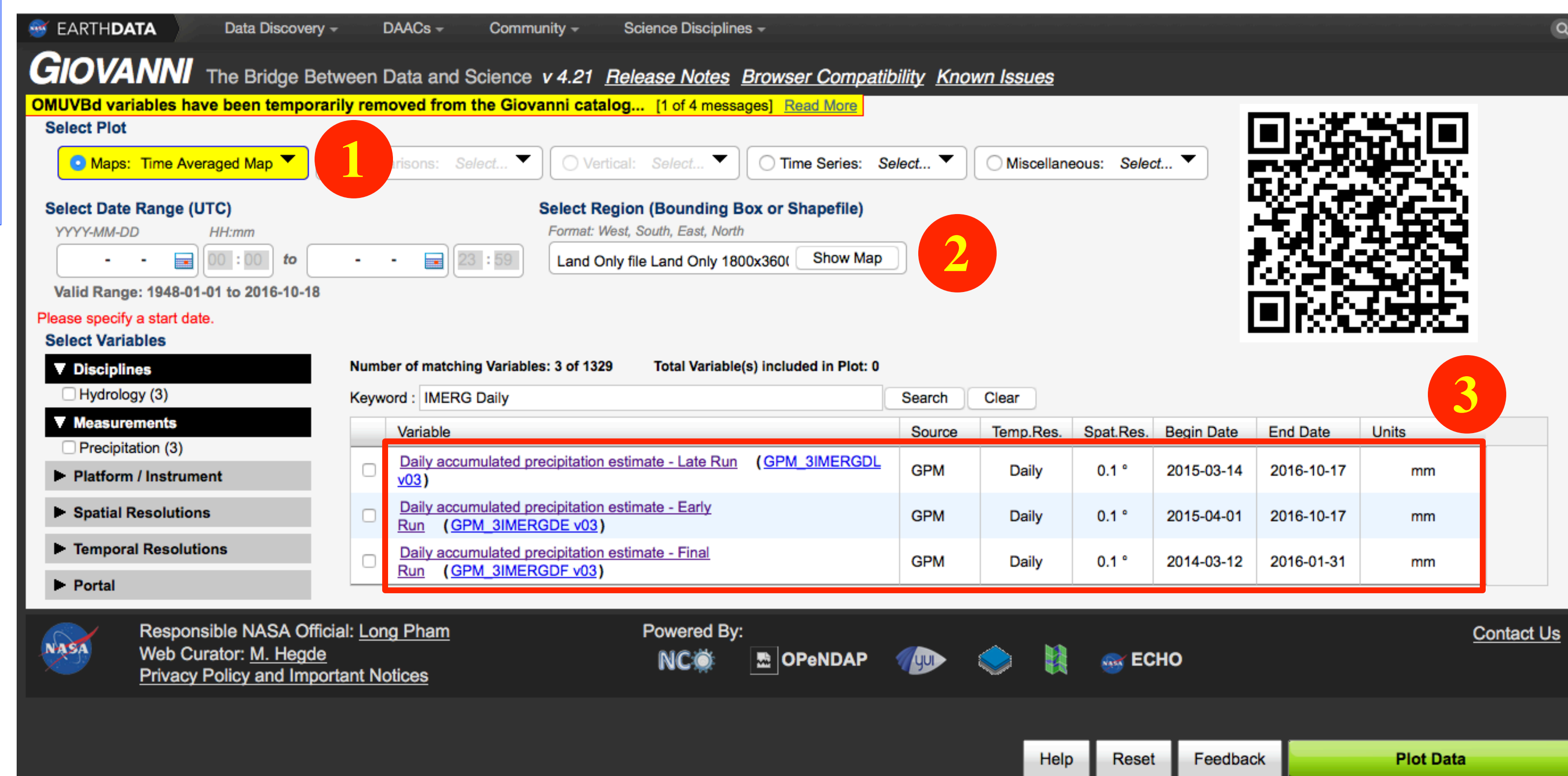
Product Summary Data Citation Documentation

Shortname: GPM_3IMERGM
Longname: GPM L3 IMERG Final 1 month 0.1 degree x 0.1 degree precipitation V03
DOI: 10.5067/GPM/IMERGM/MONTH03B
Version: 03
Format: HDF-5
Spatial Coverage: (-90.0 to 90.0, -180.0 to 180.0)
Temporal Coverage: 2014-03-01 to Present
File Size: 30 MB
Data Resolution: Spatial: 0.1 degrees x 0.1 degrees
Temporal: 1 month

Data Access

- Online Archive
- Search
- Simple Subset Wizard
- Giovanni
- OPENDAP (OGDS)

Different data access methods are available



Giovanni The Bridge Between Data and Science v 4.21 Release Notes Browser Compatibility Known Issues

OMUVBd variables have been temporarily removed from the Giovanni catalog... [1 of 4 messages] Read More

Select Plot
Maps: Time Averaged Map
Facets: Select...
Vertical: Select...
Time Series: Select...
Miscellaneous: Select...

Select Date Range (UTC)
YYYYMMDD HH:mm to YYYYMMDD HH:mm
Valid Range: 1948-01-01 to 2016-10-18

Select Region (Bounding Box or Shapefile)
Format: West, South, East, North
Land Only File Land Only 1800x3600 Show Map

Please specify a start date.

Select Variables
Disciplines: Hydrology (3)
Measurements: Precipitation (3)
Platform / Instrument: Precipitation (3)
Spatial Resolutions: Precipitation (3)
Temporal Resolutions: Precipitation (3)
Portal

Number of matching Variables: 3 of 1329 Total Variable(s) included in Plot: 0

Keyword: IMERG Daily

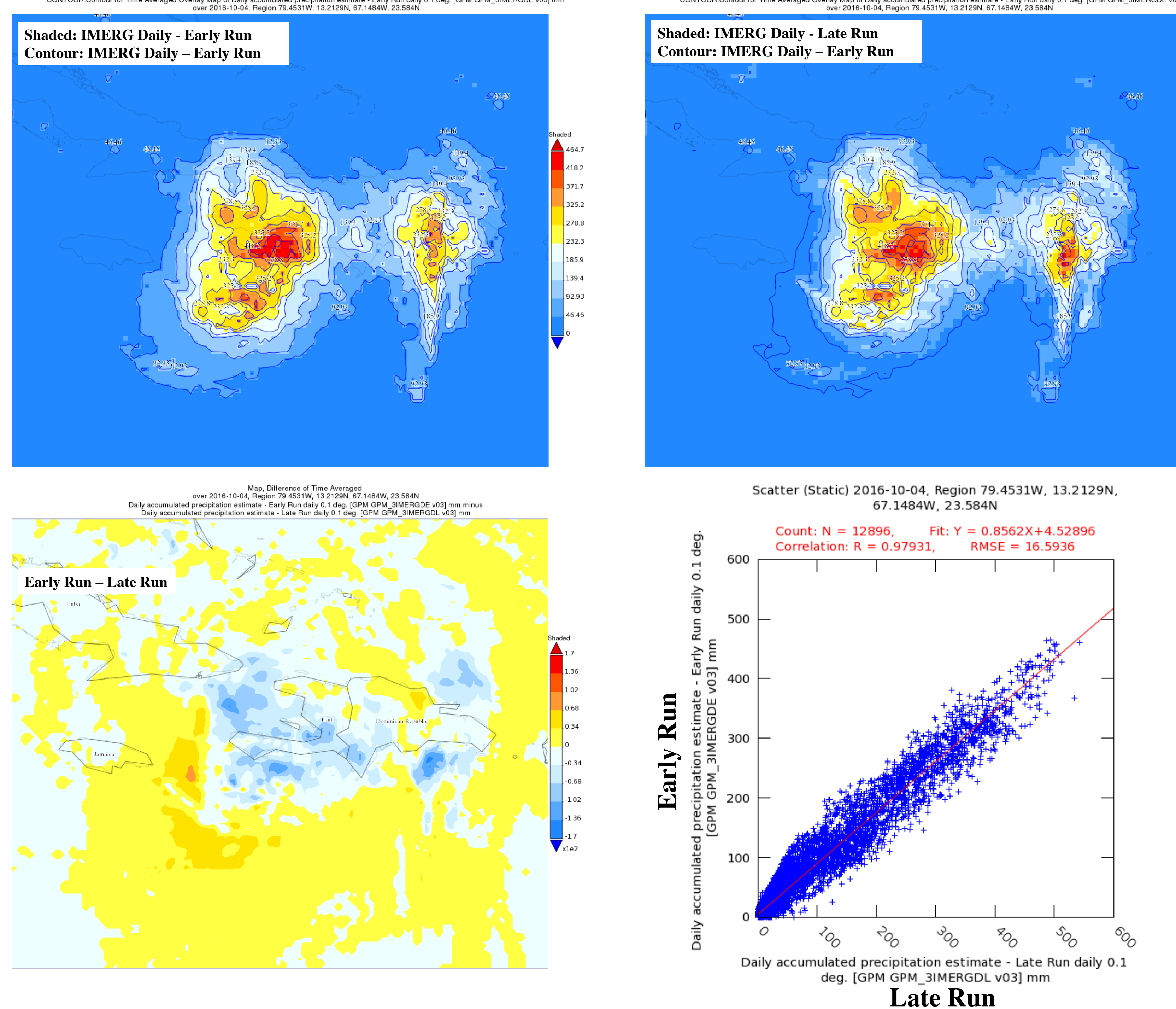
Search Clear

Variable	Source	Temp. Res.	Spat. Res.	Begin Date	End Date	Units
Daily accumulated precipitation estimate - Late Run (GPM_3IMERGDL_v03)	GPM	Daily	0.1°	2015-03-14	2016-10-17	mm
Daily accumulated precipitation estimate - Early Run (GPM_3IMERGDE_v03)	GPM	Daily	0.1°	2015-04-01	2016-10-17	mm
Daily accumulated precipitation estimate - Final Run (GPM_3IMERGDF_v03)	GPM	Daily	0.1°	2014-03-12	2016-01-31	mm

Help Reset Feedback Plot Data

Three new IMERG (Early, Late, and Final) daily datasets have been added to Giovanni.

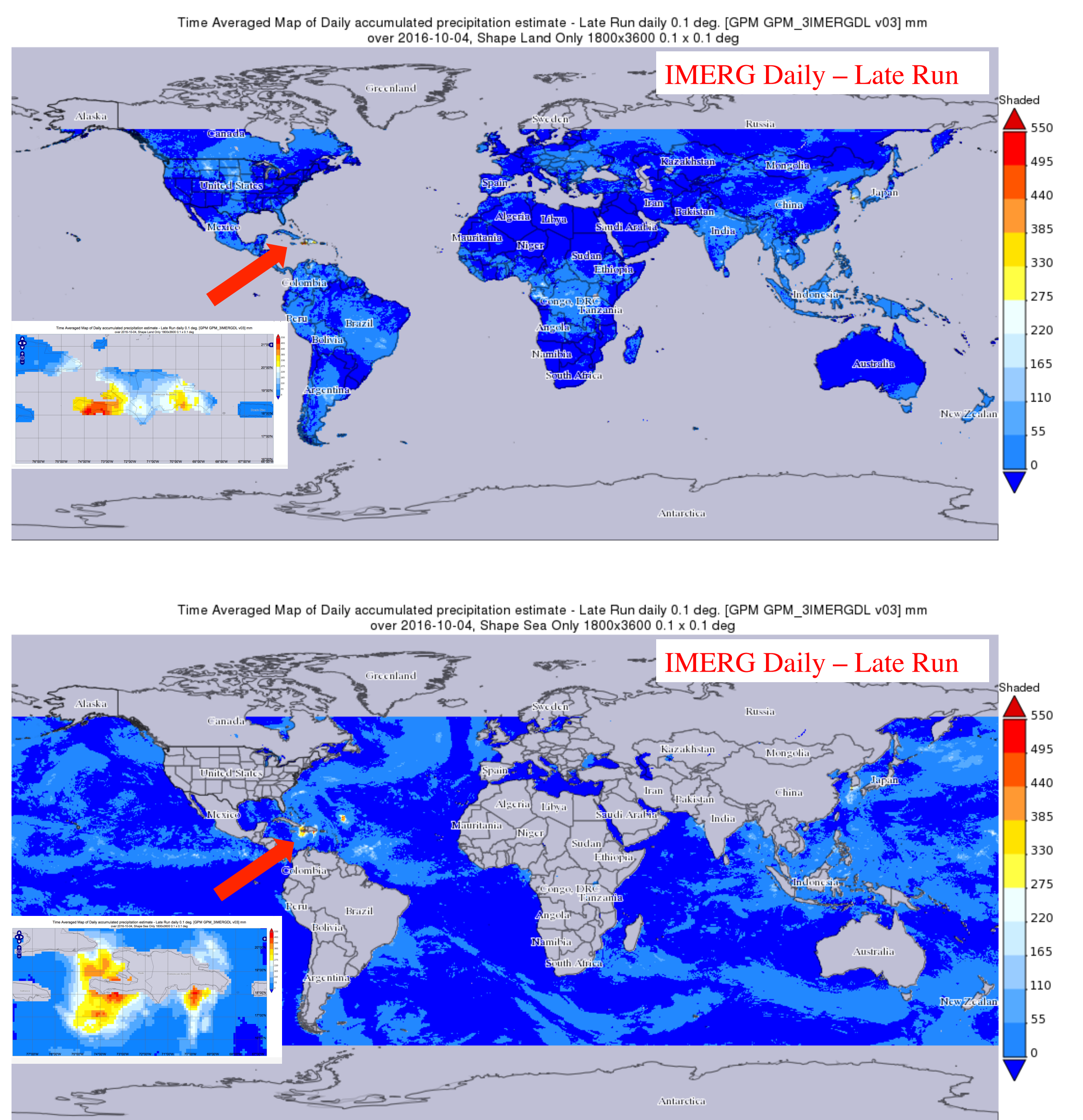
Compare GPM IMERG Early and Late Daily Products during the Passage of Hurricane Matthew in Haiti on October 4, 2016



- 1 Time-averaged overlay map (see example below)
- 2 Land/sea masks (Time-averaged Map, Area-averaged Time Series). See examples below.
- 3 Three IMERG daily (Early, Late, and Final) datasets.

Future work: a) Level-2 dataset subsetting and visualization; b) Data Lists (public and personal) with URS; c) Data quality assessment.

Land Sea Mask Examples: Hurricane Matthew made landfall in Haiti on October 4, 2016



GPM Data and Service Outreach Activities:

- GES DISC news, Twitter, user forum, GPM product and service training webinar, Giovanni Workshop
- GPM products and services at the GES DISC in the Bulletin of the American Meteorological Society (BAMS)
- Posters and talks in AGU Fall Meeting and AMS Annual Meeting

Related URLs:

GPM products: <http://disc.gsfc.nasa.gov/uui/search/GPM>
Giovanni: <http://giovanni.sci.gsfc.nasa.gov/giovanni/#dataKeyword=IMERG>
GES DISC: <http://disc.gsfc.nasa.gov>

Suggestions or subscription to our help desk list:
gsfc-help-disc@lists.nasa.gov